

# Leg gangrene in a newborn

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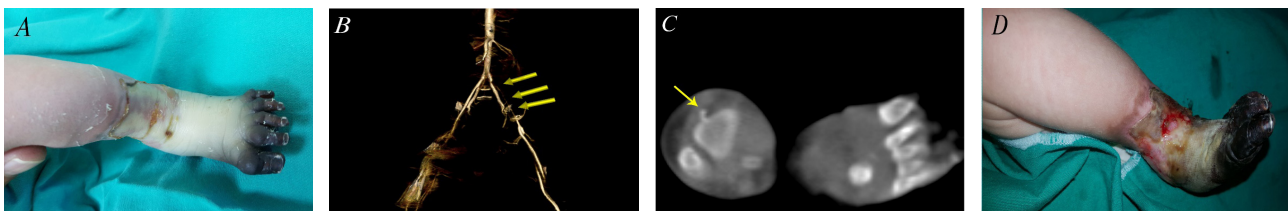
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A full-term, vaginally delivered, 7-day-old boy presented with poor feeding, tachypnea, and color change on his leg. His prenatal and family histories were unremarkable. Lethargy, decreased neonatal reflexes, respiratory distress, and a necrotic appearance on the distal left foot were observed (figure 1A). Left femoral pulse was absent. Laboratory examination revealed metabolic acidosis, hypernatremia, increased serum creatinine and acute phase reactants, and prolonged coagulation parameters. Doppler ultrasound and computerized tomographic angiography revealed decreased calibration in the left external iliac artery, monophasic weak blood flow in the superficial femoral and popliteal arteries, and absence of blood flow in the dorsalis pedis artery (figures 1B and 1C). Thrombophilia and congenital metabolic disorders were excluded. Low molecular weight heparin and antibiotic therapy led to resolution of the clinical picture except for his leg. Amputation below the knee was performed after demarcation of the gangrene became clear (figure 1D). He was discharged after an uneventful postoperative period. Vascular insufficiency of the extremities, leading to ischemic necrosis of a limb, is a serious complication in newborns. Predisposing factors such as prematurity, polycythemia, maternal diabetes, and umbilical catheterization precipitate arterial thrombosis [1]. Sepsis and hypovolemia in addition to arterial malformation contributed to thrombosis and eventual gangrene in this patient. Amputation should be delayed until definite demarcation of the gangrenous portion is determined and growth plates should be preserved during amputation to ensure an adequate stump for subsequent prosthetic fitting [2].



**Figure 1.** A cutaneous and subcutaneous necrotic appearance was present on the distal one-third approximately of the left leg with unclear demarcation (A). Decreased calibration in the left external iliac artery at three-dimensional CT-angiography [arrows] (B). The dorsalis pedis artery is present in the right leg (arrow), while absence of blood flow in the left dorsalis pedis artery can be seen on an axial image of the feet (C). A more prominent demarcation line was observed on the patient's leg after low molecular weight heparin and antibiotic therapy (D).

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DOI:10.4328/ECAM.133

Received : 11.04.2018

Accepted : 28.04.2018

Published Online : 29.04.2018

Printed Online : 01.09.2018

**Eu Clin Anal Med 2018;6(3): DOI:10.4328/ECAM.133**

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**How to cite this article:** Soner Sertan Kara, Hasan Kahveci, Ali Fettah. Leg gangrene in a newborn. *Eu Clin Anal Med* 2018;6(3): DOI:10.4328/ECAM.133.